

What is claimed is:

1. A method for scrolling a document, comprising the step of scrolling a document at a rate based on a pressure of a pointer on a touch-sensitive surface, such that the rate of scrolling of the document is a non-linear function of the pressure.

2. The method of claim 1, further comprising the steps of:
determining a current pressure p of the pointer on the touch-sensitive surface; and
determining a scroll rate dy/dt for the document according to the following algorithm:

$$dy/dt = K_4 (e^{(P+1)} - e + 1)$$

wherein

$$P = K_3 ((p / p_0) - 1),$$

K_3 is a first gain factor, K_4 is a second gain factor, and p_0 is a predetermined pressure value.

3. The method of claim 2, wherein the touch-sensitive surface comprises a first portion and a second portion, further including the steps of:

determining which of the first and second portion is being touched by the pointer; and

selecting the first and second gain factors based on said step of determining, wherein the first and second gain factors are selected to be different when the first portion is touched by the pointer as compared with the second portion.

4. The method of claim 3, wherein the first and second portions are physically separate portions.

5. A system for scrolling a document, comprising:

a touch-sensitive device having a first surface portion and a second surface portion, the touch-sensitive device configured to generate at least one signal indicating which of the first and second surface portions is being touched by a pointer; and

a processor coupled to the touch-sensitive device, the processor configured to receive the at least one signal and to scroll the document in a first direction responsive to the first portion being touched by the pointer, and a different second direction responsive to the second portion being touched by the pointer.

6. The system of claim 5, wherein the first surface portion is physically separate from the second surface portion.

7. The system of claim 5, wherein the processor is configured to scroll the document at a rate depending upon a pressure of the pointer against the touch-sensitive device.

8. The system of claim 5, wherein the processor is configured to scroll the document at a different rate depending whether the first or second surface portion is being touched by the pointer.

9. The system of claim 5, wherein the processor is configured to scroll the document even while the pointer does not move along either of the first and second surface portions.

10. The system of claim 9, wherein the processor is further configured to continue to scroll the document until the pointer is released from the first or second surface that is being touched by the pointer.

11. The system of claim 5, wherein the processor is further configured to scroll the document only if the one of the first and second surface portions indicated by the at least one signal is held by the pointer for at least a threshold amount of time.

12. The system of claim 11, further including a third surface portion disposed between the first and second surface portions.

13. The system of claim 12, wherein the third surface portion is elongated and physically continuous with the first and second surface portions, the first and second surface portions being disposed at opposing end regions of the third surface portion.

14. A method for changing a scroll mode in a computer system for scrolling a document, the method comprising the steps of:

placing the computer in a first scrolling mode;

sensing a gesture made by a pointer on a central portion of a touch-sensitive surface between two ends of the touch-sensitive surface;

determining whether the gesture is a certain gesture; and

responsive to the gesture being a certain gesture, placing the computer in a different second scrolling mode.

15. A method for scrolling a document, comprising:

determining whether a pointer is touching a first surface portion or a second surface portion of a touch-sensitive device;

responsive to determining that the pointer is touching the first surface portion, scrolling the document in a first direction; and

responsive to determining that the pointer is touching the second surface portion, scrolling the document in a different second direction.

16. The method of claim 15, wherein the first and second directions are opposite directions.

17. The method of claim 15, wherein the step of scrolling the document in the first direction includes scrolling the document in the first direction at a first rate, and the step of scrolling the document in the second direction includes scrolling the document at a different second rate.

18. The method of claim 17, wherein the first and second rates are different per unit of pressure applied by the pointer.

19. A method for scrolling a document, comprising the steps of:
detecting a touch of a pointer on a portion of a touch-sensitive surface;
determining whether the pointer is still touching the portion of the touch-sensitive surface upon an expiration of a first timeout, and if so, autoscrolling the document; and
determining whether the pointer is still touching the portion of the touch-sensitive surface upon an expiration of a second timeout longer than the first timeout, and if not, undoing at least a portion of an amount that the document has autoscrolled.